

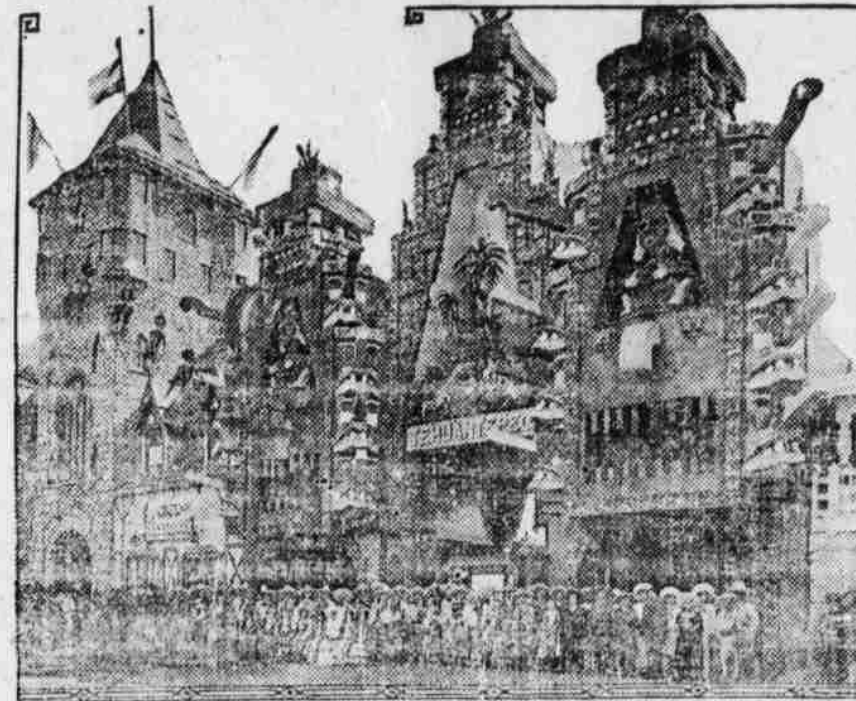
Of Course You Are Going to See the Exposition

The World in Epitome Shown by Displays in the Vast Exhibit Palaces at the Panama-Pacific International Exposition.

Today the great Panama-Pacific International Exposition at San Francisco is being widely exploited throughout the world by the millions of sight-seers who have visited the exposition since its opening on February 20th last as the most beautiful, comprehensive and interesting universal exposition that the world has ever known. The wonderful exhibit palaces house the treasures of the earth, while the grounds, planted to millions of rare bulbs, are a gorgeous mass of color and fragrance. To the visitor entering the gates for the first time, either by night or day, the scene is certain to hold the newcomer spellbound, as the vast panorama unfolds bit by bit before the gaze and the eye wanders from one beauty spot to another in an endless chain of amazing surprises. Entering the main gate at Scott street, for instance the visitor sees the great Fountain of Energy directly before him its giant sprays sparkling and flashing in the light of the warm California sun by day, or assuming the appearance of masses of flowing flames by night under the powerful beams of the great batteries of searchlights trained upon this work of art. As the spell is lifted the eye falls upon the Tower of Jewels, the great center piece of the exposition, and again attention is arrested until the eye has conquered the dizzy heights of this gem-studded tower, every cornice and figure lending forth its share of dazzling lights.

The world's advances in all branches of art, science and industry is amazingly portrayed in the exhibits. Among the electrical exhibits, for example, is the Audion amplifier, invented by Lee De Forest. Through this invention the visitor in the Liberal Arts palace is enabled to converse over the long distance telephone with his relatives at the farthest section of the Atlantic coast and may hear the voice of the speaker in greater volume than was actually given into the transmitting telephone. The intensity of the sound is increased by passing through heat waves. Today it is possible for an orator in New York city to address through the telephone a large audience at San Francisco, the sound being increased so that it is of power great enough to fill a large hall. This single advance in the development of the telephone is paralleled in hundreds of other lines. The railroads have made low round trip rates and ample and reasonable accommodations are to be had in San Francisco and the adjoining cities.

ARTS AND CRAFTS OF 10,000 YEARS AGO SHOWN IN THE TEHUANTEPEC VILLAGE AT THE PANAMA-PACIFIC INTERNATIONAL EXPOSITION



The Tehuantepec village on the Zone at the Panama-Pacific International Exposition is a bit of the oldest civilization of the world brought to San Francisco from the country of the Aztec ruins in Central America. Beautiful carpet weaving is shown, together with onyx cutting, clay and wax modeling, ancient dancing and singing, pottery making and coloring and other arts characteristic of the people. A typical garden is open to the visitor in the concession in which is to be seen the landscape art of this people.

Some Marvelous Exhibits at the Panama-Pacific International Exposition

Exhibits in Agricultural Palace at the Panama-Pacific International Exposition Show Caterpillar Gaining Favor Over Lug-wheeler Tractors in Farm Machinery.

An observer in the Agriculture Palace at the Panama-Pacific International Exposition at San Francisco cannot help noticing, in the display of agricultural power machinery, the almost complete supersession of the new design of power tractor, known as the caterpillar, over the cumbersome, unstable, high-wheeled engine of a few years ago. There are few of the old models on exhibition, while the caterpillar principle has been applied to almost every type of engine for agricultural purposes.

The caterpillar proper is a heavy sheet metal chain, varying in width from ten inches to two feet according to the weight of the engine, which passes around two heavy sprocket wheels like a belt. These wheels revolving, pass the chain about them, the lower part moving backward, with the weight of the engine resting on the broad surface of the chain between the two sprockets.

An engine of this type can be operated on ground soft enough to mire an ordinary farm wagon.

Duplicate of the Roosevelt African Shotgun.

A duplicate of the shotgun which Col. Theodore Roosevelt took with him on his African trip, a gun constructed expressly for him by an American armorer, is on display at the manufacturer's exhibit in the Manufacturers' Palace at the Panama-Pacific International Exposition, San Francisco. The gun cost its illustrious owner \$300, and its beautiful design, graceful lines and wonderful inlay work would justify the expenditure to any lover of fine pieces. The stock is elaborately hand carved, the barrels and lock are hand engraved, and the lock is inlaid with a hunting scene in gold. The barrels are of the finest Krupp steel. Before starting on the trip the ex-president wrote to the makers: "I really think it is the most beautiful gun I have ever seen. I am almost ashamed to take it to Africa and subject it to the rough treatment it will receive."

The left barrel is choked and the right open. It is cored to shoot either buckshot or a single ball. In a group in this Palace are displays by four of the world's greatest manufacturers of sporting arms, which form an exhibit which attracts hundreds of sportsmen. Each display is in charge of a firearms expert.

Pearl Culture a New Industry. Among the interesting exhibits of the Japanese in the Manufacturers' Palace at the Panama-Pacific International Exposition is a demonstration of the methods and results of pearl cultivation in the far East. The displays of this cultivated product, showing hundreds of pearls which until pearl culture was placed on a commercial basis a few years ago would have been the possessions of royalty, will delight any lover of beautiful gems, and the methods of production will prove interesting to any observer. Though pearl culture has become a thriving industry in Japan, attempts to reproduce it in other parts of the world have yielded but meager results.

The successful method of propagation was evolved by the Japanese scientist Kokichi Mikimoto, who discovered a species of oyster which produced the pearl on the surface of the shell. Though the finding of the oysters and inserting the nuclei, then waiting for the pearl to grow to a commercial size may seem a simple process, the fact that it has not reduced the price of the gems, even to that of the most expensive imitations, shows that it is beset with many difficulties.

Daniel Webster's Plow at the Panama-Pacific International Exposition.

One of the most valuable exhibits commercially, in the Agriculture Palace at the Panama-Pacific International Exposition, San Francisco, is an ancient plow displayed in the Massachusetts exhibit, and forming a striking contrast to the highly-complex modern machinery displayed on the acreage of floor about it.

The plow owes its distinction to the circumstance that a hundred years ago Daniel Webster's youthful hands guided it along the furrows of his father's farm near Marshfield, Mass. It was drawn by a yoke of oxen and it the future peer of American orators and statesmen could turn an acre or sod a day he had to work from daylight to dark.

Radium Used to Promote Plant Growth.

Some of the remarkable properties of radium are being demonstrated by an exhibitor in the Liberal Arts building at the Panama-Pacific International Exposition, San Francisco, in connection with a new invention making possible the radification of water for medicinal purposes.

Demonstrating the power of this mineral promoting metabolism a number of young plants, some existing with and some without the aid of radium, are shown. Those in the radioactive soils are seen to be growing much more rapidly than those in common soil, and to have a more healthy appearance.

This inventor has found a process of impregnating terra cotta bricks with radium-bearing minerals, and these small bricks placed in water are said to give it remarkable curative properties. The porous bricks last almost indefinitely, losing only half their potency, it is estimated, in 1,800 years. Since the discovery of this mineral it has been found that many celebrated waters, as Carlsbad and Baden Baden, owe their health-giving properties to radium. The inventor claims that his process produces in ordinary waters the qualities of these famous springs.

The radium ore used in the manufacture of radioactive terra cotta is known as carnotite, a formation found mainly in Colorado and Utah, and now producing three-fourths of the world's radium. The European mineral, known as pitchblende, from which the famous European springs are impregnated, is also displayed.

Most Rapid Photographs Ever Taken.

The most remarkable set of speed photographs ever taken are a part of the war department's exhibit in Machinery Hall at the Panama-Pacific International Exposition, San Francisco. They are pictures of a shell from a 12-inch coast defense gun in flight, the set including the various phases of the flight beginning just as the great projectile pokes its nose out of the muzzle of the gun.

The pictures were taken with a lens having an exposure period of one five-thousandth of a second, this being the fastest shutter ever manufactured. The exposure at the proper time in the flight of the projectile was made by breaking an electric circuit in a wire stretched across the trajectory at the desired point and connecting with the shutter.

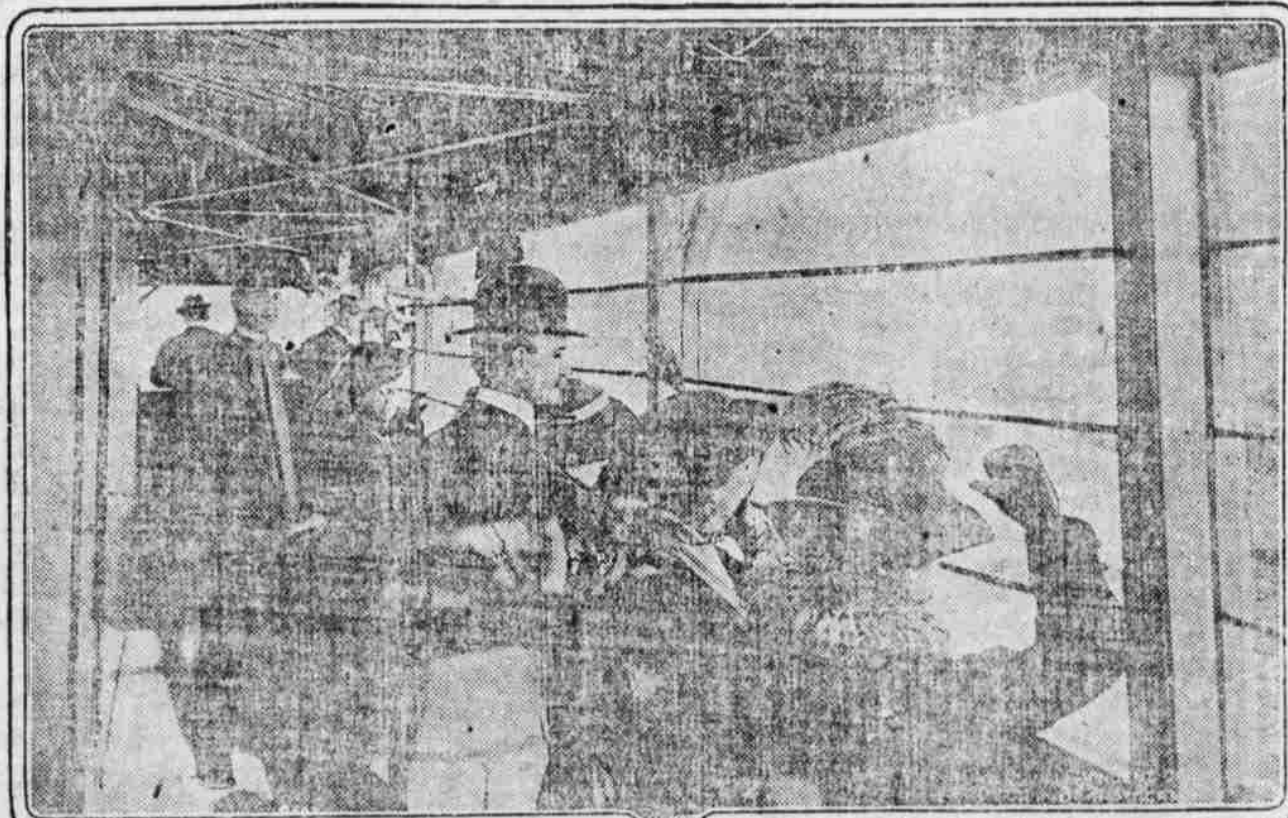
One picture shows the shell half-way out of the muzzle before any smoke and gas has escaped. Another was taken when the shell was two feet from the muzzle but hidden by a heavy ring of smoke. A third shows the shell in flight a hundred feet from the muzzle. The photographs are so perfect and the exposure so rapid that scarcely any blur is perceptible. They were taken at Fortress Monroe, Va., under the direction of Capt. F. J. Behl of the coast artillery corps and head of the department of enlisted specialists at the Coast Artillery school at Fortress Monroe.

NATIVE LIFE OF THE FAR PACIFIC.

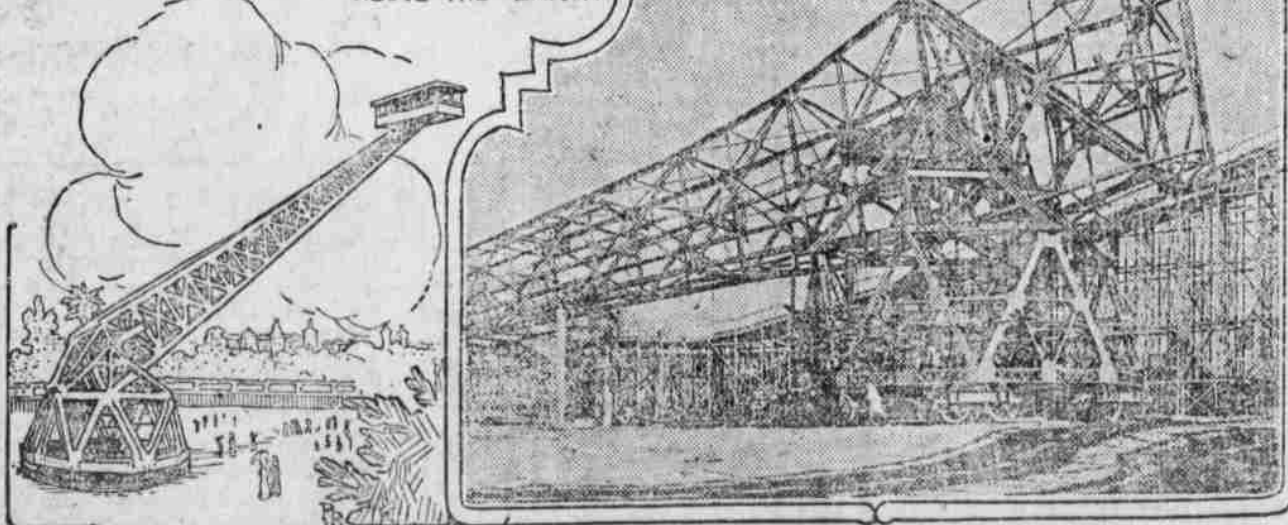


The photograph shows the belle of the interesting Samoan village at the Panama-Pacific International Exposition at San Francisco. The structures in this village, comprising the native thatched huts of the Samoan, or as they were formerly called, the Navigator Islands, were brought intact from the native villages and are absolutely faithful in all their features. There are many native families living in the village who for the edification of visitors perform the aquatic feats in which the islanders excel, and dance the rhythmic native dances. The life of the people of the Pacific ocean is wonderfully illustrated at the Exposition, and of all the races none are more interesting than the Samoans who exhibit many traces of Aryan descent. No Exposition visitor should fail to see these unique tribespeople.

THE WONDERFUL AEROSCOPE, HIGHER THAN THE FERRIS WHEEL, GIVES VISITORS MARVELOUS VIEW OF THE WORLD'S GREATEST EXPOSITION



VISITORS ON THE AEROSCOPE 265 FEET
ABOVE THE EARTH



THE GIANT FRAME OF THE AEROSCOPE AS IT APPEARED UNDER CONSTRUCTION

For the seeker of amusement there is opportunity a-plenty in the unique mechanical achievement, the Aeroscope, on "The Zone," at the Panama-Pacific International Exposition. The Aeroscope resembles a giant crane of a novel and intricate design, its steel construction recalling that of the Bascule bridge. At the extremity of the long arm of the crane is a two-story car with a seating capacity for 100 persons and standing room for 20 more. At the short end of the crane is a giant mass of concrete, which serves as a counter-balance for the long arm of the crane. Beneath the car are two great water tanks, which take on water or discharge it as passengers enter or leave the car, thus always preserving the balance to a nicety. When, for example, a man weighing 160 pounds enters the car an amount of water of equal weight is released from the tank, and when the passenger departs 160 pounds of water are automatically discharged into the tank below the car. The car ascends without perceptible motion, and perfect safety and a thrilling ride of ten minutes is assured to passengers while enjoying this trip or 265 feet into the clouds, or four feet higher than the Ferris wheel. Two motors control the ascent and descent in conjunction with the counter-balance of the huge car, and when it reaches its extreme height it begins to swing slowly around on the wheels at its base, giving a magnificent view of the exposition, of San Francisco bay and of the city of San Francisco.

UNCLE SAM SHOWN ON THE ZONE.



This photograph shows a unique figure of Uncle Sam on the Zone, the great amusement section at the Panama-Pacific International Exposition, San Francisco.

THIS IS "MR. SOA KUM."



Visitors to the Zone at the Panama-Pacific International Exposition find much to amuse them by a visit to "Soa Kum" and hundreds of other interesting concessions which line the Zone's broad avenue for a mile. In "Soa Kum" one tries to hit all kinds of needs for all kinds of prizes.

Vice-President Thomas R. Marshall's Exposition Message to the Nation

The Vice-President of the United States, after spending five days at the great Panama-Pacific International Exposition at San Francisco, indited the following message to the people of the nation containing his appreciation of the great fair:

"The steps of my life seem to have been marked by national expositions. My young manhood began with the Centennial, maturity was marked by the Columbian and Louisiana Purchase, and now the sunset years bring me to this marvel of the Republic upon the shores of the sunset seas. So often have I thought I saw the Pillars of Hercules inscribed with their 'ne plus ultra' that I hesitate to say that I have reached them. But they who build this Panama-Pacific International Exposition were so wise in adopting all the good features and avoiding those which marred the preceding ones, that to me it seems as near perfection as the mind and hand of man have ever wrought.

"Whoever can, even at a sacrifice of something which for the moment appears necessary, should come to see a real work of art never equaled, even by a mirage. If there be anyone in America with a thirst for knowledge and for beauty and a longing for a liberal education, such an one can here obtain it. This is the University of the world. It has a chair fully endowed to meet the wants and needs of each. The eye, the ear, the mind, the heart, the soul, each may have its horizon here enlarged. I came to bear a message, I remain to become a student; I leave the feet of this Gamaliel of all expositions with regret.

THOMAS R. MARSHALL